

CLAIMS

1. A method for treating a polyester polymer which comprises heating a polyester polymer (C), which is obtained by ring-opening polymerization of a polymer (A) having hydroxyl and/or ester bonds and cyclic esters (B) containing ϵ -caprolactone, in a solid state to a temperature that is not lower than 115°C and lower than 170°C and is lower than the melting point of the polyester polymer (C) to remove a low-boiling component (v) from the polymer (C) obtained by the polymerization.
2. A method for treating a polyester polymer according to claim 1, characterized in that the heating of the polyester polymer (C) in a solid state is performed by flowing a gas (g) heated to a temperature that is not lower than 115°C and lower than 170°C and is lower than the melting point of the polyester polymer (C).
3. A method for treating a polyester polymer according to claim 1 or 2, characterized in that the solid state is a powder form, a particle form or a flake form.
4. A method for treating a polyester polymer according to any one of claims 1 to 3, characterized in that the temperature of heating the polyester polymer (C) in a solid state is 120 to 150°C.
5. A method for treating a polyester polymer according to any one of claims 2 to 4, characterized in that the gas (g) contains 1 to 22 vol% of oxygen.
6. A method for treating a polyester polymer according to any

one of claims 1 to 5, characterized in that the polymer (A) is a crystalline aromatic polyester.

7. A method for treating a polyester polymer according to any one of claims 1 to 6, characterized in that the melting point of the polymer (A) is not lower than 150°C.

8. A method for treating a polyester polymer according to any one of claims 2 to 7, characterized in that a gas obtained by removing the low-boiling component (v) from a post-flow gas (g') generated by flowing the gas (g) is reused for the treatment.

9. A method for treating a polyester polymer according to any one of claims 1 to 8, characterized in that the low-boiling component (v) comprises ϵ -caprolactone and/or ϵ -caprolactone dimer.

10. A polyester polymer which comprises a polyester polymer (C) obtained by ring-opening polymerization of a polymer (A) having hydroxyl and/or ester bonds and cyclic esters (B) containing ϵ -caprolactone, wherein concentrations of ϵ -caprolactone and ϵ -caprolactone dimer contained in the polyester polymer (C) are each not higher than 450 ppm.

11. A polyester polymer according to claim 10, wherein the concentrations of ϵ -caprolactone and ϵ -caprolactone dimer are each not higher than 100 ppm.